

HEADTRA



CONCUSSIONS ARE
RUINING THE LIVES
OF THOUSANDS OF
YOUNG FOOTBALL
PLAYERS AND
OTHER ATHLETES.
ONE YOUNG PLAYER
IS DETERMINED TO
CHANGE THIS.

BY LAUREN TARSHIS



AS YOU READ, THINK ABOUT:
PERSUASION

Lauren Tarshis wrote this article to convince you that concussions are a serious problem in teen sports, and to persuade young athletes to protect themselves. Does she achieve her goals?

Go online to watch Lauren talk about writing this article.

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**NARRATIVE
NONFICTION**
Reads like fiction—
but it's all true

FOOTBALL



October 12, 2006, was crisp and clear in Maple Valley, Washington—a perfect day for football.

Parents chatted in the stands as two middle school teams faced off on the field. Thirteen-year-old Zackery Lystedt was a star player on his team, Tahoma Junior High. Already that afternoon he'd made two clutch tackles, helping put Tahoma in the lead.

Late in the game's first half, Zack tackled a runner rushing toward the end zone. As both boys tumbled to the ground, Zack's head smacked



The other player quickly scrambled to his feet.

Zack did not.

He lay on his back, clutching his helmet, **writhing** in pain. His coach ran to him. His fellow players “took a knee” and waited solemnly for their fallen teammate to get up. Seconds ticked by. But then Zack was back up. His teammates slapped his back as he walked off the field with his coach. Zack sat down on the bench to rest.

The game went on—football as usual.

But there was nothing usual about what was happening inside Zack’s head. Zack had sustained a brain injury known as a concussion. When his head hit the turf, his brain shook violently inside his skull. As Zack sat on the bench with his teammates, he looked normal. Inside his brain, however, billions of cells were caught up in a storm of chemicals unleashed by the impact.

Playing Through the Pain

Since the dawn of football in the late 1800s, knocks on the head have been considered just another part of the game. Professional players think nothing of racking up four or five “dings” per season. Tough guys play through the pain, heading back onto the field even with blurred vision, throbbing temples, and stumbling steps.

This attitude—part of what experts call football’s “warrior culture”—has trickled down to even the youngest players. “It all



starts with the pros,” says Roger Goodell, commissioner of the National Football League (NFL). “We know that we set the example for the kids playing football.”

Indeed, kids like Zack grew up watching some of their favorite football stars treat their heads like **battering rams**, colliding with their opponents with ferocious force. Popular video games like *Madden NFL* showed injured players staggering along the field with obvious head injuries. Sportscasters on ESPN and other

channels ran highlight segments like *Jacked Up!* that celebrated the most brutal pro and college football hits of the week.

So it was little wonder that within 15 minutes of his injury, Zack decided that his team needed him and he should go back into the game. Every year, 300,000 young athletes sustain concussions. Zack, like many others, did not realize he’d suffered a serious brain injury and that by stepping back into the game, he was risking brain damage, or even death.

Zack's coach looked him over. But a concussion is an "invisible injury" that leaves no outward marks. Without special training, even many doctors can't detect them. Zack told his coach that he felt fine. And so the coach did what most coaches would have done when a star player says he feels well enough to play: He sent him back onto the field.

Zack played like a champion through the second half. He sprinted, blocked, and made key tackles. Meanwhile, his injured brain was a ticking bomb, with each small hit and **jostle** he sustained pushing it closer to a kind of biological explosion. In the game's final seconds, Zack raced after the other team's running back. He crashed into him, forcing a fumble. It was a game-saving play for Zack's team.

There would be no celebration.

Barely a minute later, Zack collapsed. His brain was bleeding and swelling, pushing against the inside of his skull. The pain was blinding. Zack drifted in and out of consciousness, with his **frantic** parents and coach by his side. He was airlifted to a hospital in Seattle, where surgeons worked **feverishly** to save his life. They removed large sections of his skull to relieve the pressure. With each passing hour, his brain became more damaged.

By that night, Zack had lapsed into a coma and was on life support. It would be three months before he opened his eyes, and nine months before he could utter

a word. Today, five years after his injury, Zack is in a wheelchair and needs round-the-clock care. He talks only with difficulty and maintains a grueling program of **rehabilitation**.

Second-Impact Injuries

It's shocking to think that a friendly middle school football game could end with a healthy

young athlete on the **brink** of death. Yet every year, 140,000 young football players get concussions. Many consider this the price of playing America's most popular sport, a game that for many kids helps build discipline and focus—traits that can help them succeed later in life.

Over the past few years, evidence has mounted



A CLOSER LOOK

BRAIN DAMAGE IN THE NFL

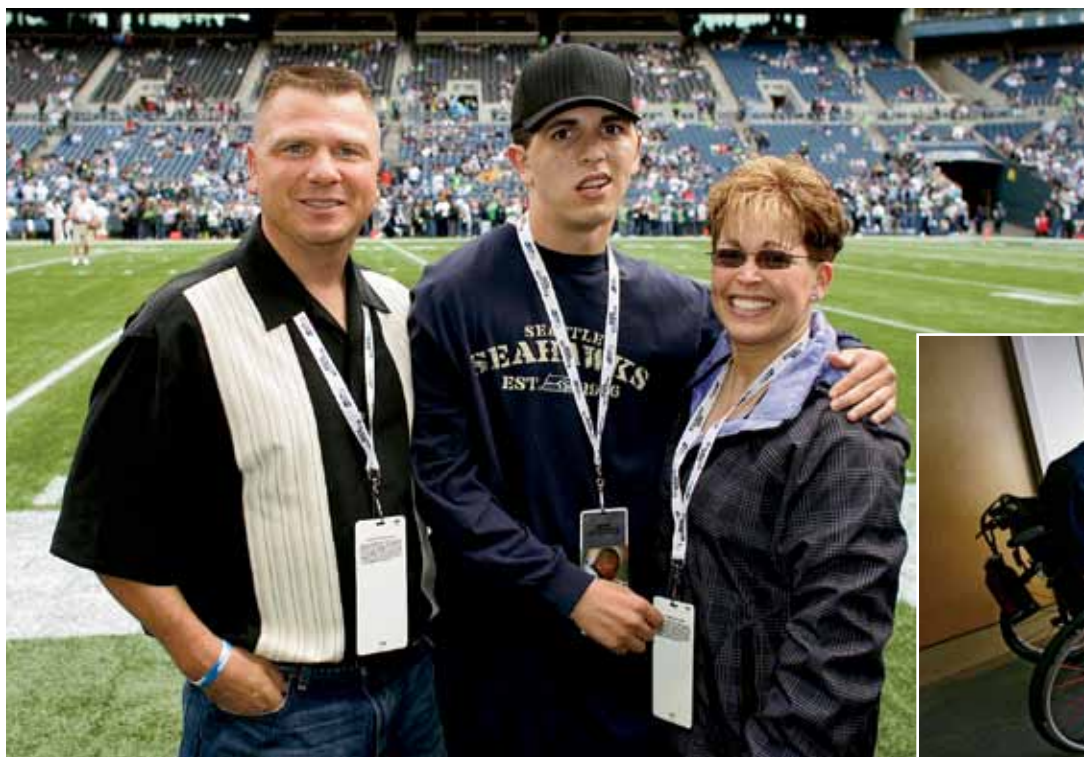
Dozens of retired NFL players have been diagnosed with brain disease that scientists have linked to the concussions they sustained while playing football. Players can suffer permanent brain damage from repeated concussions, even if those concussions are given time to heal.



Andre Waters (**left**) was a star NFL player from 1984 to 1995. He was known as a friendly and generous man. After retirement, he became deeply depressed. He killed himself at age 44. An examination of his brain linked his depression to brain damage caused by repeated concussions sustained during his career.



In the last few years, college and NFL teams have enacted tougher policies designed to protect players. But bigger, faster players mean harder hits and more serious head injuries for players like Ben Roethlisberger (**left**), who has had at least four concussions. Even NFL players in their 20s have been found to have brain damage.



Zack's ongoing struggles are a daily heartbreak for his parents, Victor and Mercedes. But they are awed by their son's toughness and his ongoing progress.



that there is a major concussion crisis in youth sports, especially football. Concussions can happen to anyone, at any age. Most heal if treated properly, with rest. But many young athletes return to sports before their brains have completely healed. In Zack's case, it was not the first concussion that caused his brain to bleed and swell. It was those second, third, and fourth small knocks to his head that happened after he went back in the game. In other words, if Zack had stayed on the bench and off the field until his concussion healed, he would likely be playing football today.

After returning to the game, Zack suffered a "second-impact injury." Over the past decade, these injuries have killed or caused major brain damage in more than 50 young football

players. Thousands of other young athletes have suffered post-concussion syndrome, a less-severe condition that is life-changing nonetheless. Their untreated concussions often leave them with constant headaches, memory problems, mood swings, and other issues. Some may have these symptoms for the rest of their lives (see "Confessions of a Teenage Concussion Queen" on page 9).

Research shows concussions can lead to serious brain diseases later in life. Indeed, dozens of retired NFL players have been diagnosed with **profound** brain problems that were likely caused by impacts they sustained during their playing years.

What If . . . ?

During those first weeks, as Zack lay on life support, the words

"What if?" haunted his parents. What if they had all understood the dangers of concussions? What if his coach had been trained to recognize the signs? What if there had been a trainer on the sidelines whose job was to make sure injured players sat out?

"It's the hardest part of this, knowing that what happened to Zack could have been so easily prevented," Zack's father, Victor, told *Scope*.

As the Lystedts focused on helping their son recover, they also became determined to prevent other athletes from suffering Zack's **fate**. Working with lawmakers and the doctors who treated Zack, they helped develop the Zackery Lystedt Law, which is intended to protect young players from the dangers associated with concussions. The law is designed to help

educate athletes, coaches, and trainers about concussions, so they can prevent second-impact injuries. It was passed in Washington in 2009. Since then, 28 other states have passed the Lystedt Law or similar laws. More states plan to follow suit.

The NFL, after years of denying the connection between

concussions and brain disease in its own players, is a major supporter of the Lystedt Law. It has passed tougher rules about concussions in its own league and donated millions of dollars to help scientists study brain injury and the connection between concussions and brain disease. Even the makers of *Madden NFL* have joined the

effort: In the latest version of the game, the announcers provide information about concussions as injured players are sidelined. The helmet-crunching sound effects have been removed.

These are certainly encouraging steps. But most experts agree that the warrior culture persists in football. Concussions



TRUE TEEN STORY

Confessions of a Teenage Concussion Queen

Millions of teens suffer lasting problems caused by concussions. Here, 18-year-old Becca Bobrow shares her story.

The first time it happened, I was in seventh grade, warming up for a soccer tournament. I caught a ball in the air and, unfortunately, against my face.

Concussion number one.

I played in the game despite that hit.

It happened again in eighth grade. I dove at a player about to take a shot. She missed the ball and accidentally kicked my head.

Concussion number two.

In my dizzied state, I fell and hit my head on the ground.

Concussion number three.

But the game didn't stop; I kept playing.

During soccer season my freshman year of high school, my brain was so vulnerable that I suffered a fourth concussion due to vibrations traveling up my spine to my brain, as I repeatedly dove to the ground.

Each time I was concussed, my doctor gave me explicit instructions: No reading. No computers. No loud noise. No TV. No strong light. Don't think too much. I followed



Becca today (above) and as a young soccer player.

these directions, but my injuries still ended my athletic career.

I can never play contact sports again.

I still suffer lingering effects of my concussions. I can't process small-sized text. I am slow to process new information. I sometimes have trouble with word retrieval when I speak. I wonder, if I had stopped playing each time I hit my head, would I still be the speed-reader I used to be?

It's been four years since my last concussion, and I've moved on. I'm a freshman in college, living my life.

Given what I now know about concussions, I realize just how lucky I am.

are on the rise in all sports; players are getting bigger and faster. As many as 40 percent of high school athletes admit to going back into a game even though they have symptoms of concussions. This is a problem that Zack and his family are working hard to solve.

Nobody knows how far Zack's recovery will take him. His doctors and parents marvel at his ongoing progress. "There is nobody tougher than my son," Victor says.

Indeed, Zack pursues his physical therapy with the same **gritty** strength that made him a star on the football field. This past May, at his high school graduation ceremony, he was able to get out of his wheelchair and walk onstage with a cane to collect his diploma. He is taking some college courses, and working part-time for the Seattle Seahawks football team.

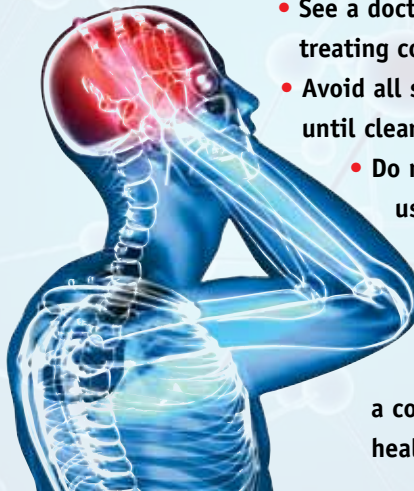
And Zack continues to spread the word about the dangers of concussions. Everywhere he goes, his message to young athletes is the same: No game is more important than your life. ●

SYMPTOMS OF A CONCUSSION

Concussions can cause severe symptoms or even loss of consciousness. But sometimes, the symptoms are more subtle and don't show up until hours or even days after the injury.

- forgetfulness
- confusion
- headache
- balance problems or dizziness
- light or noise sensitivity
- feeling sluggish or foggy
- feeling irritable or overly emotional
- concentration or memory problems
- blurred vision

If you suspect you have a concussion . . .

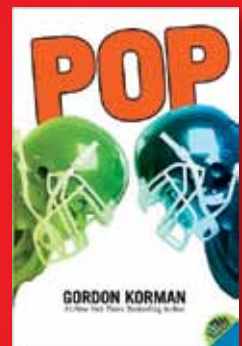


- See a doctor who has experience treating concussions.
- Avoid all sports and physical activity until cleared by a doctor.
- Do not read, play video games, use a computer, or do anything that requires concentration. Mental or visual stimulation can worsen symptoms of a concussion and prolong the healing process.

CONTEST

Are You Convinced?

Did Lauren convince you that concussions are a serious problem in teen sports? Did she persuade you to make an effort to avoid the possible consequences of a concussion? If so, what parts of the article did you find the most convincing? If not, what could Lauren have done to make the article more convincing? Send your paragraph to **ZACK LYSTEDT CONTEST**. Five winners will each get Gordon Korman's novel *Pop*. See page 2 for details.



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